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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,079	04/23/2004	Ching-I Yu	YUCH3018D/WKP	9230

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EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/830,079	YU ET AL.	
	Examiner	Art Unit	
	Laura Edwards	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4, 12, 13 and 15 is/are rejected.
- 7) ☒ Claim(s) 5-11, 14, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/238,730.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>042404</u> | 6) <input type="checkbox"/> Other: ____ |

Art Unit: 1734

Claim Objections

Claims 6-11 are objected to because of the following informalities: in claim 5, line 3, "frame." should be changed to --frame,-- and in claim 6, line 9, "applicator rotated" should be changed to --applicator is rotated--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Brenner (US 3,832,213).

Art Unit: 1734

Brenner teaches a coating apparatus comprising a frame (11); a rack (8, 9) sliderably reciprocally mounted on said frame; a material-transferring cylinder (7) rotatably mounted on said rack; a metered material feeder (22, 16) adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression or backup cylinder (17) rotatably mounted on said frame and adapted for supporting a tape or web of carrier; and a driving mechanism (see col. 3, lines 21-23) adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Huber et al (US 5,670,211).

Huber et al teach a coating apparatus comprising a frame (20); a horizontally disposed rack (not numbered) sliderably reciprocally mounted on said frame as indicated by arrow in center of a material transfer cylinder (26), the material-transferring cylinder (7) rotatably mounted on said rack; a metered material feeder (30) adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression or backup cylinder (28) rotatably mounted on said frame and adapted for supporting a workpiece or tape of carrier; and a driving mechanism (i.e., piston cylinder as shown attached to beam (24) in Fig. 2) adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder.

Art Unit: 1734

Claims 4, 12, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Heiler et al (US 6,675,707).

Heiler et al teach a coating apparatus comprising a frame (53); a rack (6) sliderably reciprocally mounted on said frame; a material-transferring cylinder (7) rotatably mounted on said rack; a metered material feeder (8, 9) adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression or backup cylinder (4) rotatably mounted on said frame and adapted for supporting a web or tape of carrier; and a driving mechanism (see Fig. 5) adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder.

With respect to claim 12, see container or holder (51) for varnish or bonding agent and scraping wheel (8).

With respect to claim 15, see other embodiment of Heiler et al whereby the rack (6) can include a container or holder (52) for varnish or bonding agent with a narrow elongated outlet extending in the direction parallel to the material transferring cylinder (see col. 5, lines 34-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1734

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heiler et al (US 6,675,707) in view of Hashimoto et al (JP2-242222).

The teachings of Heiler et al have been mentioned above but Heiler et al are silent concerning the material transferring cylinder or applicator cylinder having a width smaller than that of the substrate being coated. However, it was known in the coating art, at the time the invention was made, to provide an applicator cylinder with a width smaller than that of the substrate being coated so as to provide a coating film pattern on the substrate with less of a width than the substrate as evidenced by Hashimoto et al (see Figs. 1 and 2 and applicator roller 1). In view of the teachings of Hashimoto et al, it would have been within the purview of one skilled in the art to make the material transferring cylinder or applicator cylinder of a smaller width than the substrate to provide a coating film pattern of less width than that of the substrate.

Allowable Subject Matter

Claims 5-11, 14, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 1734

Claim 5 would be allowable because there is no teaching or suggestion in the prior art of a resin coated carrier fabrication apparatus comprising the combination of a frame; a rack sliderably reciprocally mounted on said frame; a material-transferring cylinder rotatably mounted on said rack; a metered material feeder adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression cylinder rotatably mounted on said frame and adapted for supporting a tape of carrier; and a driving mechanism adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder wherein the driving mechanism comprises a first air cylinder, a swivel arm and a second air cylinder all mounted on said frame, a reciprocating rod of said first air cylinder being mounted on said rack to reciprocate it, said swivel arm being rotatably mounted to said frame and coupled between said rack and a reciprocating rod of said second air cylinder.

Claims 6-11 would be allowable because there is no teaching or suggestion in the prior art of a resin coated carrier fabrication apparatus comprising the combination of a frame; a rack sliderably reciprocally mounted on said frame; a material-transferring cylinder rotatably mounted on said rack; a metered material feeder adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression cylinder rotatably mounted on said frame and adapted for supporting a tape of carrier; and a driving mechanism adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder wherein the metered material feeder comprises a container mounted on the frame and holding the bonding agent, an applicator mounted on the frame below the material-transferring cylinder, and a scraping wheel

Art Unit: 1734

mounted on said rack besides said material-transferring cylinder, said applicator being partially dipped in said bonding agent and keeping a predetermined gap between said applicator and said material-transferring cylinder, said bonding agent being attached to a periphery of said applicator then applying to the periphery of said material-transferring cylinder when said applicator rotated, said scraping wheel being adapted for removing excessive amount of said bonding agent from the periphery of said material-transferring cylinder for enabling said bonding agent to be covered over the periphery of said material-transferring cylinder according to a predetermined thickness.

Claim 14 would be allowable because there is no teaching or suggestion in the prior art of a resin coated carrier fabrication apparatus comprising the combination of a frame; a rack sliderably reciprocally mounted on said frame; a material-transferring cylinder rotatably mounted on said rack; a metered material feeder adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression cylinder rotatably mounted on said frame and adapted for supporting a tape of carrier; and a driving mechanism adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder wherein the metered material feeder comprising a container holding a bonding agent in which said material-transferring cylinder is peripherally partially dipped, a scraping wheel mounted on said rack besides said material-transferring cylinder and adapted for removing excessive amount of said bonding agent from the periphery of said material-transferring cylinder, and further comprising a pair of scrapers mounted on said rack and spaced from each other at a pitch smaller than the width of the tape of carrier to be supported on said impression cylinder and respectively pressed on the periphery of said material-transferring cylinder at two sides.

Art Unit: 1734

Claim 16 would be allowable because there is no teaching or suggestion in the prior art of a resin coated carrier fabrication apparatus comprising the combination of a frame; a rack sliderably reciprocally mounted on said frame; a material-transferring cylinder rotatably mounted on said rack; a metered material feeder adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression cylinder rotatably mounted on said frame and adapted for supporting a tape of carrier; and a driving mechanism adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder wherein said metered material feeder comprises a container holding a bonding agent, and a narrow elongated outlet extended in direction in parallel to the axis of said material-transferring cylinder and adapted for delivering said bonding agent from said container to the periphery of said material-transferring cylinder and the length of the outlet is smaller than the width of the tape of carrier to be supported on the impression cylinder.

Claim 17 would be allowable because there is no teaching or suggestion in the prior art of a resin coated carrier fabrication apparatus comprising the combination of a frame; a rack sliderably reciprocally mounted on said frame; a material-transferring cylinder rotatably mounted on said rack; a metered material feeder adapted for applying a layer of bonding agent to a periphery of said material-transferring cylinder according to a predetermined thickness; an impression cylinder rotatably mounted on said frame and adapted for supporting a tape of carrier; and a driving mechanism adapted for reciprocating said rack on said frame to adjust a gap between said material-transferring cylinder and said impression cylinder wherein said metered material feeder comprises a container holding a bonding agent, and a narrow elongated outlet

Art Unit: 1734

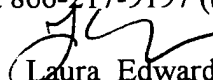
extended in direction in parallel to the axis of said material-transferring cylinder and adapted for delivering said bonding agent from said container to the periphery of said material-transferring cylinder and further comprising a pair of scrapers mounted on said rack and spaced from each other at a pitch smaller than the width of the tape of carrier to be supported on said impression cylinder and respectively pressed on the periphery of said material-transferring cylinder at two sides.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura Edwards
Primary Examiner
Art Unit 1734

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January 21, 2005